AICTE Training And Learning (ATAL) Academy

Online Faculty Development (FDP)Programme on

Internet of Things (IoT) using Arduino & Raspberry Pi

25.10.2021 to 29.10.2021

Sponsored by

All India Council For Technical Education, New Delhi

Organized by

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGG.

SAKTHI POLYTECHNIC COLLEGE

SAKTHI NAGAR–638 315

Anthiyur Taluk, Erode District.

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About SPC

Sakthi Polytechnic College has been sponsored by the Sakthi foundation as one of its developmental programmes. The mission of this institution is to impart technical education to the rural students. PadhmaBhushan. late Dr.N.Mahalingam, the famous industrialist, educationalist and philanthropist was the promoter of the foundation and the institution. The institution is managed by a Governing Council with Dr.M.Manickam,M.Sc.,M.B.A. Chairman, SakthiSugars Ltd as the Chairman of the council.

Sakthi Polytechnic college, started functioning in September 1981. We are offering 3 year Diploma courses in Civil Engineering, Mechanical Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering, Metallurgy, Agricultural Technology, Instrumentation and Control Engineering and Computer engineering.

The College is situated in a sprawling area of 31 acres Campus near Sakthi Sugars Ltd at Appakudal on Bhavani to Sathyamangalam main road(Via Athani),18 Km from Bhavani.

It is a matter of pride that Sakthi Polytechnic College was the first institution in this area to offer conventional diploma courses. The institution has been approved by the All India Council for Technical Education.

About the Dept of ECE

The department has well established laboratories and computer centre to meet the needs of the industry. The faculty members are highly qualified and well experienced to educate the students with the support from able technicians.

About the course

Internet of Things (IoT) is a network infrastructure that connects physical objects and software applications wirelessly, allowing them to communicate with each other and exchange data via the cloud.

This programme focuses on IoT concepts such as sensing, actuation and communication. It covers the development of Internet of Things (IoT)prototypes including devices for sensing, actuation, processing, and communication to help you to develop skills and experiences. The Internet of Things (IOT) is the next wave, world is going to witness. Today we live in an era of connected devices the future is of connected things.

In this instructor-led, live training, participants will learn the fundamentals of IoT as they step through the creation of an Arduino-based IoT sensor system.

Course Content

- **Introduction to IOT**
- **Sensor Technology**
- **IoT Architecture**
- **About Arduino IDE**
- **Interfacing Sensor With Arduino**
- **Rasperry PI**
- **Connect temperature, humidity sensor etc using Arduino and Rasperry PI**
- **Cloud- IoT**
- **Security and privacy issues in IoT**
- **Industrial IoT**
- **Potential IoT applications like Smart health,Smart home, etc.**
- **Practical demonstration using Thing speak.**
- **Art of Living**

Outcome Of the Workshop:

By the end of this training, participants will be able to:

- Understand the principles of IoT, including IoT components and communication methods.
- Use Arduino communication modules to build different types of IoT systems.
- Use a mobile app to control Arduino.
- Connect an Arduino to other devices through Wi-Fi.
- Build and deploy an IoT Sensor System.

Resource persons:

Eminent personalities from Academic Institutions and Industries.

Eligibility:

- ♦ No Registration Fee
- ♦ Faculty members from AICTE Approved institutions (Polytechnics & Engineering Colleges), Research Scholars and Industry Personnel are eligible to Apply.
- ♦ Certificates will be issued only to those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test.
- ♦ Registration can be done only through the ATAL portal.
- ♦ Online Platform– Google Meet– Link will be conveyed later to the registered candidates.

Programme Schedule

Time / Day	9.00 AM – 11 AM	11 AM to 11.15 AM Tea Break	11.15 AM – 1.15 PM	1.15PM to 2.30PM Lunch Break	2.30PM – 4.30 PM
Monday 25.10.2021	Inauguration& Introduction to IoT		Sensor Technology		IoT Architecture
Tuesday 26.10.2021	About Arduino IDE.		Interfacing Sensor With Arduino.		Rasperry PI
Wednesday 27.10.2021	Connect temperature, humidity sensor etc		Connect temperature, humidity sensor etc		Art of Living
Thursday 28.10.2021	Cloud- IoT		Security and privacy issues in IoT		Industrial IoT
Friday 29.10.2021	Potential IoT applications like Smart health, Smart home, etc		Practical demonstration using Thing speak.		Assessment & Feedback Valedictory Function

For Further details, Contact

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